DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: JONES POND Lake Area (ha): 8.09 Maximum depth (m): MIDDLETON Town: 3.1 Town: MIDDLETON County: Strafford Mean depth (m): 1.6 River Basin: Coastal Volume (m³): 128500 Relative depth: Latitude: 43°30'44" N Longitude: 71°06'40" W 1.0 Longitude: 71°06'40" W Shore configuration: --Elevation (ft): 1010 Areal water load (m/yr): 5.27
Shore length (m): 900 Flushing rate (yr⁻¹): 3.30
Watershed area (ha): 88.0 P retention coeff.: 0.65
% watershed ponded: 0.0 Lake type: artificial

BIOLOGICAL:	30 January 1995	2 September 1994
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 95%	CHROOCOCCUS 60%
#2	·	ANABAENA 15%
#3		
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		6.32
DOM. ZOOPLANKTON (% TOTAL) #1	COLLOTHECA 34%	VORTICELLA 62%
#2	KERATELLA 28%	DIFFLUGIA 15%
#3	SYNCHAETA 24%	CALANOID COPEPOD 9%
ROTIFERS/LITER	83	50
MICROCRUSTACEA/LITER	9	71
ZOOPLANKTON ABUNDANCE (#/L)	92	563
VASCULAR PLANT ABUNDANCE		Sparse
SECCHI DISK TRANSPARENCY (m)		2.1
BOTTOM DISSOLVED OXYGEN (mg/L)	7.3	9.0
BACTERIA (E. coli, #/100 ml) #1		
#2		
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m^3) : None Anoxic volume (m^3) : None

CHEMICAL:			JONES POR		
	30 Janua	ary 1995	2 5	September	1994
DEPTH (m)	1.0	2.0	1.0		2.0
pH (units)	6.4	6.4	6.9		7.0
A.N.C. (Alkalinity)	8.7	8.6	6.2		6.4
NITRATE NITROGEN	< 0.10	< 0.10	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.36	0.20	< 0.10		< 0.10
TOTAL PHOSPHORUS	0.008	0.008	0.028		0.018
CONDUCTIVITY (µmhos/cm)	35.6	34.9	32.3		33.0
APPARENT COLOR (cpu)	16	17	19		18
MAGNESIUM			0.48		
CALCIUM			3.2		
SODIUM			1.8		
POTASSIUM			0.31		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	5	5	5		5
TN : TP	45	25			
CALCITE SATURATION INDEX			3.1		

All results in mg/L unless indicated otherwise

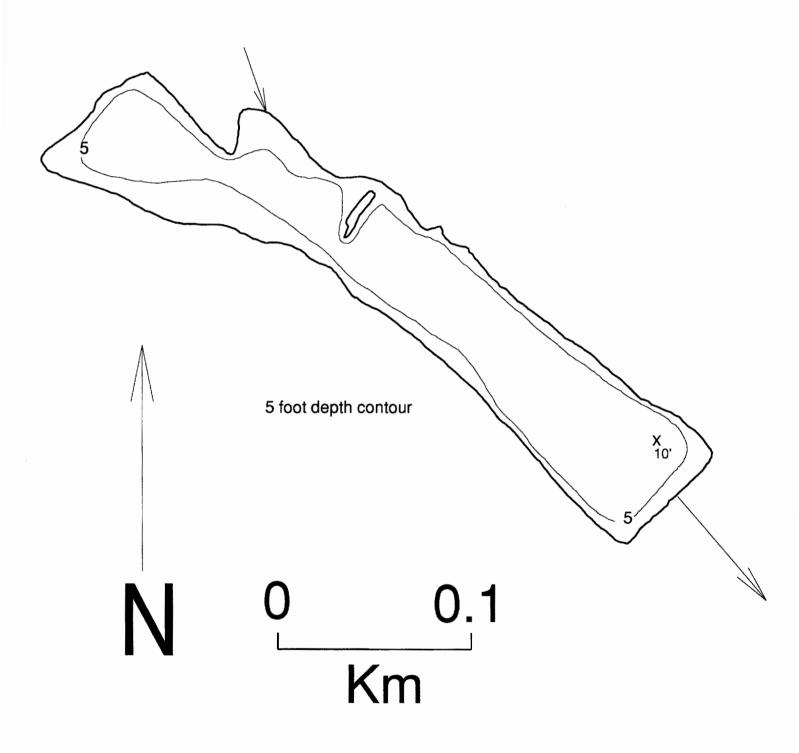
TROPHIC CLASSIFICATION: 1994

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	3	0	1	4	Oligo.

COMMENTS:

- 1. AKA Pocomoonshine Pond.
- This is a man-made pond on Jones Brook located in the Jones Pond Wildlife Management Area that is managed by the NH Fish and Game Department. It is located on a F&G gated road; access by walk-in only. No motors are allowed and only fly fishing is permitted.
- 3. Water level was down about 1 1/2 feet at the September sampling.
- 4. Shoreline was mostly rocky with patches of sandy areas (unusual for a flooded man-made pond).
- 5. Although not abundant, blue-green algae dominated the net phytoplankton in the summer; protozoans dominated the zooplankton.

Jones Pond Middleton



FIELD DATA SHEET

LAKE: JONES POND DATE: 09/02/94

TOWN: MIDDLETON

WEATHER: CLEAR & WARM

	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	18.2	9.1	96 %
	1.0	18.0	9.0	95 %
	2.0	18.0	9.0	95 %
	3.0	17.8	9.0	93 %
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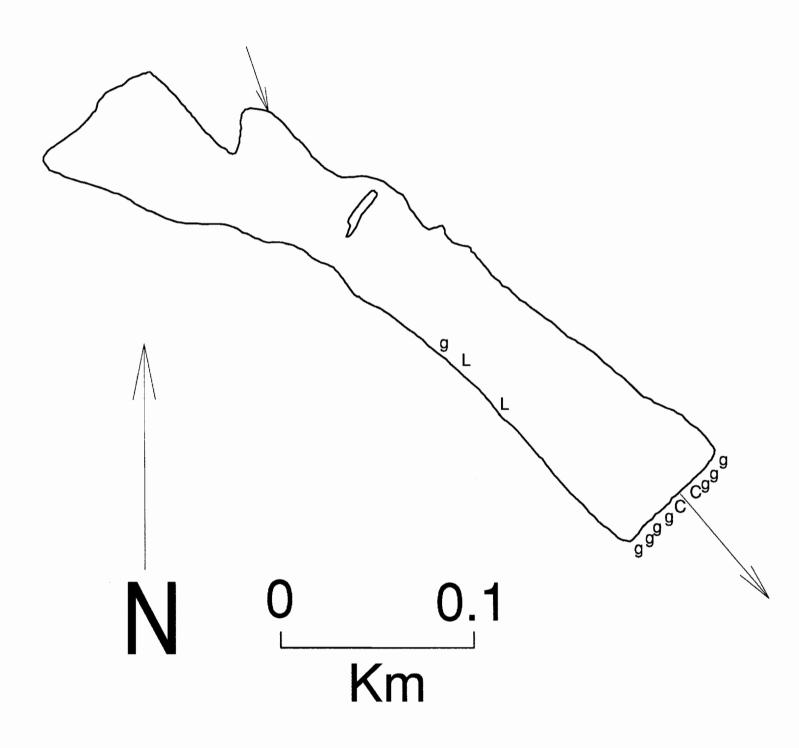
SECCHI DISK (m): 2.1 **COMMENTS:**

BOTTOM DEPTH (m): 3.1

TIME: 1220

*Dissolved oxygen values are in mg/L

Jones Pond Middleton



AQUATIC PLANT SURVEY LAKE: JONES POND TOWN: MIDDLETON DATE: 09/02/94 PLANT NAME **ABUNDANCE** Key **GENERIC** COMMON Myrica gale Sweet gale Sparse g L Chamaedaphne calyculata Leatherleaf Sparse C Vaccinium macrocarpon Cranberry Sparse

OVERALL ABUNDANCE: Sparse

GENERAL OBSERVATIONS:

- 1. Essentially no rooted plants were observed in the pond. The above shoreline/terrestrial plants were located primarily along the earthen dam.
- 2. Some dead trees and branches poked up through the water at the western end of the pond.